

Title (en)

FOLDABLE ELECTRONIC DEVICE MODULES WITH IMPACT AND BEND RESISTANCE

Title (de)

FALTBARE ELEKTRONISCHE GERÄTEMODULE MIT SCHLAG- UND BIEGEFESTIGKEIT

Title (fr)

MODULES DE DISPOSITIF ÉLECTRONIQUE PLIABLES AYANT UNE RÉSISTANCE AUX CHOCS ET À LA FLEXION

Publication

**EP 3695445 B1 20231129 (EN)**

Application

**EP 18795886 A 20181009**

Priority

- US 201762571028 P 20171011
- US 2018055024 W 20181009

Abstract (en)

[origin: WO2019074932A1] A foldable electronic device module includes: a glass-containing cover element having a thickness from about (25)  $\mu\text{m}$  to about (200)  $\mu\text{m}$ , an elastic modulus from about (20) to (140) GPa, and first and second primary surfaces; a stack comprising: (a) an interlayer having an elastic modulus from about (0.01) to (10) GPa and a thickness from about 50 to (200)  $\mu\text{m}$ , and (b) a flexible substrate having a thickness from about (100) to (200)  $\mu\text{m}$ ; and a first adhesive joining the stack to the cover element, and comprising an elastic modulus from about (0.001) to (10) GPa and a thickness from about (5) to (25)  $\mu\text{m}$ . Further, the module comprises an impact resistance characterized by tensile stresses of less than about (4100) MPa and less than about (8300) MPa at the first and second primary surfaces of the cover element, respectively, upon an impact in a Pen Drop Test.

IPC 8 full level

**H10K 50/84** (2023.01); **G06F 1/16** (2006.01); **H10K 50/00** (2023.01); **H10K 77/10** (2023.01); **H10K 101/00** (2023.01); **H10K 102/00** (2023.01)

CPC (source: EP KR US)

**B32B 7/12** (2013.01 - US); **B32B 27/36** (2013.01 - US); **G06F 1/1601** (2013.01 - EP KR); **G06F 1/1652** (2013.01 - EP KR); **H10K 50/84** (2023.02 - EP KR US); **H10K 50/841** (2023.02 - US); **H10K 59/12** (2023.02 - US); **H10K 77/111** (2023.02 - EP KR US); **B32B 2457/00** (2013.01 - US); **H10K 2101/00** (2023.02 - EP KR); **H10K 2102/311** (2023.02 - EP KR US); **H10K 2102/351** (2023.02 - EP); **Y02E 10/549** (2013.01 - EP); **Y02P 70/50** (2015.11 - EP)

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